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KNOBBE MARTENS OLSON & BEAR LLP			ARCHIE, NINA	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/563,199	Applicant(s) BROWNLIE ET AL.	
	Examiner Nina A. Archie	Art Unit 1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19, 27-34 and 38-56 is/are pending in the application.
- 4a) Of the above claim(s) 16-19, 27-39 and 43-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 40-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/11/2006 and 2/28/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Drawings

2. The drawings in this application have been accepted. No further action by Applicant is required.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Information Disclosure Statement

4. The information disclosure statement filed on 12/11/2006 and 2/28/2007 has been considered. An initialed copy is enclosed.

Election/Restrictions

5. Applicant's election with traverse of claims 1-15, 40-42 is acknowledged. The traversal is on the ground(s) that Applicant state that Restriction Requirement is improper because according to PCT RULE 13.1: "The international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention)". And, according to PCT RULE 13.2: "Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or

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more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art."

In this case, the claims share the technical feature of the use of an agent capable of raising an immune response against *M. cynos* in a dog. This is not found persuasive.

The lack of unity dated on 7/5/07 is based on the claims filed. The special technical feature of Group 1 is a vaccine composition comprising an agent capable of raising an immune response against *S. zooepidemicus*. The technical feature is anticipated by Brown et al US Patent No. 5,583,014. Brown et al teaches a vaccine composition comprising an agent capable of raising an immune response against *S. zooepidemicus* (see patent in its entirety). The special technical feature does make a contribution over the prior art as noted in Brown et al US Patent No. 5,583,014.

Therefore, unity of invention is lacking.

Claims 16-19, 27-39, 43-56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions (Group II claims 16-19, Group III claims 29-30, Group IV claims 32-34 and 55, Group V claims 43-44 and 50-51, Group VI claims 45-51, Group VII claims 52-53, Group VIII claims 31, 38-39) or a non-elected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the response filed 9/4/07.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most

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nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 2, 4-7, 10-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a written description rejection.

The claims are drawn to a vast genus of immunogenic fragments, derivatives, or nucleic acids encoding said fraction or derivatives. To fulfill the written description requirements set forth under 35 USC § 112, first paragraph, the specification must describe at least a substantial number of the members of the claimed genus, or alternatively describe a representative member of the claimed genus, which shares a particularly defining feature common to at least a substantial number of the members of the claimed genus, which would enable the skilled artisan to immediately recognize and distinguish its members from others, so as to reasonably convey to the skilled artisan that Applicant has possession the claimed invention. To adequately describe the genus of immunogenic fragments, derivatives, or nucleic acids encoding said fraction or derivatives, applicant must also give a functional limitation of immunogenic fragments, derivatives, or nucleic acids encoding said fraction or derivatives.

The specification, however, does not disclose distinguishing and identifying features of a representative member of the genus of the immunogenic fragments, derivatives, or nucleic acids encoding said fraction or derivatives, to which the claims are drawn, such as a correlation between structure of the peptide and its recited function, so that the skilled artisan could immediately envision or recognize at least a substantial number of members of the claimed genus of immunogenic fragments, derivatives, or nucleic acids encoding said fraction or derivatives.

MPEP § 2163.02 states, "an objective standard for determining compliance with the written description requirement is, 'does the description clearly allow persons of

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ordinary skill in the art to recognize that he or she invented what is claimed". The courts have decided: The purpose of the "written description" requirement is broader than to merely explain how to "make and use"; the applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the "written description" inquiry, whatever is now claimed. See *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Federal Circuit, 1991). Furthermore, the written description provision of 35 USC § 112 is severable from its enablement provision; and adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method for isolating it. See *Fiers v. Revel*, 25 USPQ2d 1601, 1606 (CAFC 1993) and *Amgen Inc. V. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016.

The Guidelines for Examination of Patent Applications Under the 35 U.S.C. 112, paragraph 1, "Written Description" Requirement (66 FR 1099-1111, January 5, 2001) state, "[p]ossession may be shown in a variety of ways including description of an actual reduction to practice, or by showing the invention was 'ready for patenting' such as by disclosure of drawings or structural chemical formulas that show that the invention was complete, or by describing distinguishing identifying characteristics sufficient to show that the applicant was in possession of the claimed invention" (Id. at 1104).

The Guidelines further state, "[f]or inventions in an unpredictable art, adequate written description of a genus which embraces widely variant species cannot be achieved by disclosing only one species within the genus" (Id. at 1106); accordingly, it follows that an adequate written description of a genus cannot be achieved in the absence of a disclosure of at least one species within the genus. Several publications document this unpredictability of the relationship between sequence and function, albeit that certain specific sequences may be found to be conserved over biomolecules of related function upon a significant amount of further research. Additionally *Bowie et al* (Science, 1990, 247:1306-1310) teach that an amino acid sequence encodes a message that determines the shape and function of a protein and that it is the ability of

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these proteins to fold into unique three-dimensional structures that allows them to function, carry out the instructions of the genome and form immunoepitopes. Bowie et al. further teach that the problem of predicting protein structure from sequence data and in turn utilizing predicted structural determinations to ascertain functional aspects of the protein is extremely complex. (column 1, page 1306). Bowie et al further teach that while it is known that many amino acid substitutions are possible in any given protein, the position within the protein's sequence where such amino acid substitutions can be made with a reasonable expectation of maintaining function are limited. Certain positions in the sequence are critical to the three dimensional structure/function relationship and these regions can tolerate only conservative substitutions or no substitutions (column 2, page 1306). Also see the following publication that support this unpredictability as well as noting certain conserved sequences in limited specific cases (Gerhold et al 1996 BioEssays, Volume 18, Number 12, pages 973-981). Therefore, in accordance with the Guidelines, the description of immunogenic fragments, derivatives, or nucleic acids encoding said fraction or derivatives is not deemed representative of the claimed invention thus the claim does not meet the written description requirement.

Claim Rejections - 35 USC § 102 and 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

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Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 3, and 8 rejected under 35 U.S.C. 102(b) as being anticipated by Mackenzie et al EP 0415794A1.

Claims 1, 3, and 8 are drawn to a vaccine composition for vaccinating dogs comprising an agent capable of raising an immune response against *Mycoplasma cynos* (*M. cynos*) in a dog.

Mackenzie et al teach vaccine composition for vaccinating dogs comprising an agent capable of raising an immune response against *Mycoplasma cynos* (*M. cynos*) in a dog, wherein the agent capable of raising an immune response against *M. cynos* in a dog comprises inactivated *M. cynos*, and a pharmaceutically acceptable carrier or adjuvant (see abstract, pg. 2 lines 34-54, pg. 3 lines 15-17, pg. 4 last paragraph).

8. Claims 1, 3, and 8 rejected under 35 U.S.C. 102(a) as being anticipated by Jira et al US 20030039667 Publication Date February 27, 2003.

Claims 1, 3, and 8 are drawn to a vaccine composition for vaccinating dogs comprising an agent capable of raising an immune response against *Mycoplasma cynos* (*M. cynos*) in a dog.

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Jira et al teach vaccine composition (multivalent fungal vaccine) comprising an agent (heat in-activated fungal antigens). Jira et al teach a fungal vaccine whereby Mycoplasmas of veterinary or medical interest include *Mycoplasma cynos*. Jira et al teach that the fungal vaccine preparation of the invention can be combined with a vaccine which contains an antigen from a microbe of *Mycoplasma* spp. Therefore Jira et al anticipate an agent capable of raising an immune response against *Mycoplasma cynos* (*M. cynos*), wherein the agent capable of raising an immune response against *M. cynos* comprising inactivated *M. cynos*, and a pharmaceutically acceptable carrier or adjuvant (see abstract, [0017], [0031], [0054]).

9. Claims 1-3, 8-11, 40, and 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie et al EP 0415794A1 in view of Jacobs et al US Patent No. 6,682,745 and Brown et al US Patent No. 5,661,006.

Claims 1-3, 8-11, 40, and 42 are drawn to a vaccine composition for vaccinating dogs comprising an agent capable of raising an immune response against *Mycoplasma cynos* (*M. cynos*) in a dog.

Mackenzie et al is relied upon as set forth supra. However Mackenzie et al does not teach a vaccine composition further comprising an inactivated or attenuated *S. zooepidemicus*, or an immunogenic fragment of *S. zooepidemicus* or a derivative thereof, or a nucleic acid encoding said fraction or said derivate. Mackenzie et al does not teach an agent capable of raising an immune response in a dog against canine respiratory coronavirus (CRCV), wherein the agent capable of raising an immune response in a dog against CRCV comprises inactivated or attenuated CRCV, or an immunogenic fragment thereof, or a nucleic acid encoding said immunogenic fraction, wherein the immunogenic fragment of CRCV comprises a spike protein or a hemagglutinin-esterase (HE) protein, or an immunogenic portion of the Spike or HE protein. Mackenzie et al does not teach a vaccine composition comprising a vaccine composition comprising: (b) an agent capable of raising an immune response against *M. cynos* in a dog; and (d) an agent capable of raising an immune response against CRCV in a dog. Mackenzie et al does not teach a vaccine composition according to

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Claim 40 further comprising: (a) an agent capable of raising an immune response against *S. zooepidemicus* in a dog.

Jacobs et al teach live attenuated bacteria *Streptococcus equi* and *Streptococcus zooepidemicus* for dogs (see abstract, claims).

Brown et al teach a nucleic acid sequence encoding a Canine coronavirus (CCV) spike protein. Brown et al teach the spike protein can be used for the immunization of dogs against CCV infection. Brown et al teach that a nucleic acid sequence encoding the CCV spike protein can be applied for the preparation of the spike protein by means of genetic engineering techniques or can be applied for the preparation of vector vaccines. Brown et al teach that Canine coronavirus cause respiratory disease therefore Brown et al teach Canine respiratory coronavirus (see abstract, Background, claims, "Summary of the Invention").

It would have been prima facie obvious at the time the invention was made to produce a vaccine composition as taught by Mackenzie and to further incorporate a vaccine composition further comprising an inactivated *S. zooepidemicus* as taught by Jacobs et al because both Mackenzie et al and Jacobs et al teach vaccine compositions for dogs.

It would also have been prima facie obvious at the time the invention was made to produce a vaccine composition as taught by Mackenzie and to further incorporate a vaccine composition further comprising an agent capable of raising an immune response in a dog against canine respiratory coronavirus (CRCV), wherein the agent capable of raising an immune response in a dog against CRCV comprising a nucleic acid encoding said immunogenic fraction, wherein the immunogenic fragment of CRCV comprises a spike protein as taught by Brown et al because both Mackenzie et al and Brown et al teach vaccine compositions for dogs.

It would also have been prima facie obvious at the time the invention was made to produce a vaccine composition as taught by Mackenzie and to further incorporate a vaccine composition further comprising an agent capable of raising an immune response in a dog against canine respiratory coronavirus (CRCV) as taught by Brown et al and further incorporate a vaccine composition further comprising (a) an agent

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capable of raising an immune response against *S. zooepidemicus* in a dog as taught by Jacob et al because Mackenzie et al, Brown et al, and Jacob et al teach vaccine compositions for dogs.

10. Claims 1, 3-4 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie et al EP 0415794A1 in view of Hechard et al 2003 Journal of Medical Microbiology Vol. 52 pgs. 35-40.

Claims 1, 3-4, and 8 are drawn to a vaccine composition for vaccinating dogs comprising an agent capable of raising an immune response against *Mycoplasma cynos* (*M. cynos*) in a dog.

Mackenzie et al is relied upon as set forth supra. However Mackenzie et al does not teach a vaccine composition further comprising an inactivated or attenuated *Chlamydomonas abortus*, or an immunogenic fragment of *Chlamydomonas abortus*, or a derivative thereof, or a nucleic acid encoding said fraction or said derivative.

Hechard et al teach a DNA immunization with the gene encoding the major outer-membrane protein (MOMP) (a nucleic acid encoding said fraction) of *Chlamydomonas abortus* in mice.

It would also have been prima facie obvious at the time the invention was made to produce a vaccine composition as taught by Mackenzie and to further incorporate a vaccine composition further comprising a nucleic acid encoding said fraction of *Chlamydomonas abortus* as taught by Hechard et al because Mackenzie et al and Hechard et al both teach vaccine compositions.

11. Claims 1 and 3-5, 8-9, 12-13, and 41 rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie et al EP 0415794A1 in view of Hansen et al US Patent NO: 5,665,363.

Claims 1 and 3-5, 8-9, 12-13, 15, and 41 are drawn to a vaccine composition for vaccinating dogs comprising an agent capable of raising an immune response against *Mycoplasma cynos* (*M. cynos*) in a dog.

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Mackenzie et al is relied upon as set forth supra. However Mackenzie et al does not teach a vaccine composition further comprising an inactivated or attenuated not *Chlamydomphila psittaci*, or an immunogenic fragment of *Chlamydomphila psittaci*, or an immunogenic fragment of *Chlamydomphila psittaci* or a derivative thereof, or a nucleic acid encoding said fraction or said derivative. Mackenzie et al does not teach a vaccine composition wherein the agent capable of raising an immune response in a dog against CPIV comprises inactivated or attenuated CPIV, or an immunogenic fragment thereof, or a nucleic acid encoding said immunogenic fraction. Mackenzie et al does not teach a vaccine composition according to Claim 9 wherein the agent capable of raising an immune response in a dog against CAV-2 comprises inactivated or attenuated CAV-2, or an immunogenic fragment thereof, or a nucleic acid encoding said immunogenic fraction. Mackenzie et al does not teach a vaccine composition wherein the agent capable of raising an immune response in a dog against *B. bronchiseptica* comprises inactivated or attenuated *B. bronchiseptica*, or an immunogenic fragment thereof, or a nucleic acid encoding said immunogenic fraction.

Hansen et al teach a method for vaccinating an animal by implanting subcutaneously an immune stimulating biologically active material into an animal with a biologically active pellet is described. Hansen et al teach that viruses (live or killed), bacteria (live or killed) are all well known biologically active materials and particularly useful ingredients in vaccines used to protect animals against specific diseases. Hansen et al teach that vaccines can comprise either a killed or living virus and that a killed vaccine can comprise wild (pathogenic) or attenuated viruses while living vaccines usually are comprised of attenuated viruses. Hansen et al teach that vaccines can also be comprised of living bacteria and can comprise killed bacteria (see abstract, "Detailed Description (paragraphs 1-3). Hansen et al teach that biologically active materials which can be used in the practice of the invention include *Bordetella bronchiseptica*, Canine adenovirus (CAV-2), Canine Parainfluenza (CPIV), and *Chlamydia psittaci*.

Hansen et al teach that the biologically active pellets of the invention can be implanted into any animal which is capable of exhibiting an immune response from the biologically active material which include but should not be limited to dogs.

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It would also have been prima facie obvious at the time the invention was made to produce a vaccine composition as taught by Mackenzie and to further incorporate a vaccine composition further comprising an agent capable of raising an immune response in a dog against CPIV comprising inactivated CPIV, further comprising an agent capable of raising an immune response in a dog against CAV-2 comprising an inactivated CAV-2, further comprising an agent capable of raising an immune response in a dog against B. bronchiseptica comprising inactivated B. bronchiseptica as taught by Hansen et al because Mackenzie et al and Hansen et al both teach vaccine compositions for dogs.

12. Claims 1, 3, 6, and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie et al EP 0415794A1 in view of Masubuchi et al 2002 J Vet Med Sci 64(12): 1165-1168.

Mackenzie et al is relied upon as set forth supra. However Mackenzie et al does not teach a vaccine composition further comprising an inactivated or attenuated not Chlamydomydia felis, or an immunogenic fragment of Chlamydomydia felis, or an immunogenic fragment of Chlamydomydia felis or a derivative thereof, or a nucleic acid encoding said fraction or said derivative.

Masubuchi et al teach suspension containing C. felis B166 strain inoculated by droplet into the eye and nose of a cat thus teaching a vaccine composition comprising an immunogenic fragment of Chlamydomydia felis.

It would also have been prima facie obvious at the time the invention was made to produce a vaccine composition as taught by Mackenzie and to further incorporate a vaccine composition further comprising an immunogenic fragment of Chlamydomydia felis as taught by Masubuchi et al because both teach vaccine compositions.

13. Claims 1, 3, 7, and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie et al EP 0415794A1 in view of Marciani et al US Patent No: 6,080,725 Date 6/27/2000.

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Mackenzie et al is relied upon as set forth supra. However Mackenzie et al does not teach a vaccine composition further comprising inactivated or attenuated *Chlamydia muridarum*, *Chlamydia pecorum*, *Chlamydia pneumoniae*, *Chlamydia suis* or *Chlamydia trachomatis*, or an immunogenic fragment thereof, or a derivative thereof, or a nucleic acid encoding said fraction or said derivative.

Marciani et al teach a vaccine composition further comprising inactivated *Chlamydia pneumoniae* and *Chlamydia trachomatis* for dogs.

It would also have been prima facie obvious at the time the invention was made to produce a vaccine composition as taught by Mackenzie and to further incorporate a vaccine composition further comprising an comprising inactivated *Chlamydia pneumoniae* and *Chlamydia trachomatis* for dogs as taught by Marciani et al because both teach vaccine compositions for dogs.

14. Claims 1, 3, and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Mackenzie et al EP 0415794A1 in view of Haanes et al US Patent No: 5,753,235 Date 5/19/1998.

Mackenzie et al is relied upon as set forth supra. However Mackenzie et al does not teach a vaccine composition further comprising an agent capable of raising an immune response in a dog against CHV, comprising an agent capable of raising an immune response in a dog against CHV comprising an inactivated or attenuated CHV, or a nucleic acid encoding said fraction or said derivative.

Frank et al teaches a vaccine composition comprising an isolated canine herpesvirus nucleic acid molecule comprising an inactivated CHV in dogs.

It would also have been prima facie obvious at the time the invention was made to produce a vaccine composition as taught by Mackenzie and to further incorporate a vaccine composition further comprising an agent capable of raising an immune response in a dog against CHV comprising an inactivated CHV as taught by Frank et al because both teach vaccine compositions for dogs.

Status of the Claims

15. No claims are allowed.
Claims 1-15 and 40-42 are rejected.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nina A. Archie whose telephone number is 571-272-9938. The examiner can normally be reached on Monday-Friday 8:30-5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Bruce Campell can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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A handwritten signature in cursive script, appearing to read "Nina Archie".

Nina A Archie

Examiner

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REM 3B31

A handwritten signature in cursive script, appearing to read "Mark Navarro".

MARK NAVARRO
PRIMARY EXAMINER